



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,041	04/07/2001	Jeffrey G. Hargis	10004121-1	5760

7590 03/15/2004  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

KIM, HONG CHONG

ART UNIT	PAPER NUMBER
----------	--------------

2186

DATE MAILED: 03/15/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

# Office Action Summary

Application No.

09/828,041

Applicant(s)

HARGIS ET AL.

Examiner

Hong C Kim

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-28 and 33-42 is/are allowed.
- 6) ☒ Claim(s) 1-6,9,29 and 30 is/are rejected.
- 7) ☒ Claim(s) 7,8,10,11,31 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Detailed Action**

1. Claims 1-42 are presented for examination. This office action is in response to the amendment filed on 12/19/2003.

### ***Claim Rejections - 35 USC ' 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by CD4018B CMOS counter, TI Data Sheet, 1998 or rejected under 35 U.S.C. 102(a) as being anticipated by Manning U.S. Patent No. 6,230,245.

As to claim 1, CD4018B discloses the invention as claimed. CD4018B discloses strobe receiver circuitry (Fig. 1), comprising: a) a counter (Fig. 1), said counter updating a count in response to strobe edges of received strobe signals; and b) counter control logic (Fig. 15), said counter control logic enabling (Fig. 15 Ref. Preset) said counter before each strobe signal is received by generating control signals asynchronously with respect to said received strobe signals; and said counter control logic resetting said counter after each strobe signal is received by receiving feedback from said counter

Art Unit: 2186

(Fig. 17) and, in response to said feedback, resetting said counter asynchronously with respect to said received strobe signals (Fig. 17).

Alternatively, Manning discloses the invention as claimed. Manning discloses strobe receiver circuitry (Fig. 3), comprising: a) a counter, said counter updating a count in response to strobe edges of received strobe signals (col. 2 lines 19-21); and b) counter control logic, said counter control logic enabling (Col. 2 lines 40-42) said counter before each strobe signal is received by generating control signals asynchronously with respect to said received strobe signals; and said counter control logic resetting said counter after each strobe signal is received by receiving feedback from said counter (col. 2 lines 40-42) and, in response to said feedback, resetting said counter asynchronously with respect to said received strobe signals (col. 5 lines 62-65).

As to claim 2, CD4018B further discloses control signal is a fixed width pulse (Fig. 17, divide counter reads on this limitation). Manning further discloses control signal is a fixed width pulse (col. 5 lines 62-65, terminal count).

As to claim 3, CD4018B further discloses said control signal comprises start and stop conditions (Fig. 17, preset and divide counter read on this limitation). Manning further discloses said control signal comprises start and stop conditions (Fig. 5 and col. 2 lines 40-43).

As to claim 4, CD4018B further discloses said start and stop conditions are, respectively, falling and rising signal edges (Fig. 17, preset and divide counter read on this limitation). Manning further discloses said start and stop conditions are, respectively, falling and rising signal edges (Fig. 5 and col. 2 lines 40-43).

As to claim 5, CD4018B discloses the invention as claimed. CD4018B discloses strobe receiver circuitry (Fig. 1), comprising: a) a counter (Fig. 1), said counter updating a count in response to strobe edges of received strobe signals; and b) counter control logic (Fig. 15), said counter control logic enabling (Fig. 15 Ref. Preset) said counter before each strobe signal is received by generating control signals asynchronously with respect to said received strobe signals; and said counter control logic resetting said counter after each strobe signal is received by i) receiving feedback from said counter (Fig. 17), ii) generating stop conditions, and iii) in response to said feedback and stop conditions, resetting said counter asynchronously with respect to said received strobe signals (Fig. 17).

Alternatively, Manning discloses the invention as claimed. Manning discloses strobe receiver circuitry (Fig. 3) , comprising: a) a counter, said counter updating a count in response to strobe edges of received strobe signals (col. 2 lines 19-21); and b) counter control logic, said counter control logic enabling (Col. 2 lines 40-42) said counter before each strobe signal is received by generating control signals asynchronously with respect to said received strobe signals; and said counter control logic resetting said counter after each strobe signal is received by i) receiving feedback

from said counter (col. 2 lines 40-42), ii) generating stop conditions, and iii) in response to said feedback and stop conditions, resetting said counter asynchronously with respect to said received strobe signals (col. 5 lines 62-65).

As to claim 6, CD4018B further discloses each received strobe signal consists of a multiple of P strobe edges ( $P \geq 2$ ), (Fig. 15, clock input) and wherein: a) said counter is a rollover counter counting to P (Fig. 17, divide counter reads on this limitation); and b) said counter control logic generates said stop conditions during receipt of a last P strobe edges of each strobe signal (Fig. 17, divide counter reads on this limitation).

Manning further discloses each received strobe signal consists of a multiple of P strobe edges ( $P \geq 2$ ) (Fig. 5, CLK), and wherein: a) said counter is a rollover counter counting to P (col. 5 lines 62-65, terminal count); and b) said counter control logic generates said stop conditions during receipt of a last P strobe edges of each strobe signal (col. 5 lines 62-65, terminal count).

As to claim 9, CD4018B further discloses said start and stop conditions are generated on a single signal line (Fig. 15 preset). Manning further discloses said start and stop conditions are generated on a single signal line (Fig. 5).

3. Claims 29-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Manning U.S. Patent No. 6,230,245.

As to claim 29, Manning discloses the invention as claimed. Manning discloses a method of receiving strobe signals into a memory controller (Fig. 3), comprising: a) enabling a strobe edge counter (col. 2 lines 40-42) asynchronously with respect to said strobe signals, before each strobe signal is received, and in response to a start condition; and b) resetting said strobe edge counter asynchronously with respect to said strobe signals, after each strobe signal is received, and in response to a combination of counter feedback and a stop condition (col. 5 lines 62-65).

As to claim 30, Manning further discloses each received strobe signal consists of a multiple of P strobe edges ( $P \geq 2$ ), and wherein said counter is a rollover counter counting to P, the method further comprising: generating said stop condition during receipt of a last P strobe edges of each strobe signal (col. 5 lines 62-65).

#### ***Allowable Subject Matter***

4. Claims 12-28 and 33-42 are allowed.
5. Claims 7-8, 10-11, and 31-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments filed 12/19/03 have been fully considered but they are not persuasive.

Applicant's remarks that the references not teaching enablement and the reset of the counter are in any way tied to the counter's receipt of each of a number of strobe signals is not considered persuasive.

CD4018B discloses enablement and the reset of the counter are in any way tied to the counter's receipt of each of a number of strobe signals. Since Preset Enable (Pin 10) signal allows information on jam inputs ( pins 2, 3, 7, 9, & 12) to preset the counter before starting to count strobe (Pin 14) signals in order to ensure proper initial count or condition (see Fig. 15). CD4018B also discloses how to reset the counter using the feedback connection in Figs. 16-17. Manning also discloses counter is enabled and disabled before/after receipt of each of a number of strobe signals (col. 2 lines 39-51). In other words, the counter is enabled responsive to a start signal and terminated in responsive to a stop signal after counting strobe signals.

Applicant's remarks that the references not teaching reset a counter after each strobe signal is received by "receiving feedback from said counter" is not considered persuasive.

Manning discloses reset a counter after each strobe signal is received by "receiving feedback from said counter" (col. 5 lines 62-65 "At or before the terminal count -- disable the Counter" reads on this limitation).

Therefore broadly written claims are disclosed by the references cited.

### ***Conclusion***



7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Applicants are requested to number each line of each claim starting with line number one to provide easier communication in the future.

10. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show

how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

13. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to TC-2100:**  
703-872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK  
Primary Patent Examiner  
March 11, 2004